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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,989	09/26/2003	Takao Mori	09792909-5693	8855

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EXAMINER

ROY, SIKHA

ART UNIT PAPER NUMBER

2879

DATE MAILED: 12/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/671,989

Applicant(s)

MORI ET AL.

Examiner

Sikha Roy

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-11 is/are pending in the application.
- 4a) Of the above claim(s) 7-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5 and 6 is/are rejected.
- 7) ☒ Claim(s) 4 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 5, 2006 has been entered.

Claims 7-10 are withdrawn and claims 1,3-6 and 11 are pending in the instant application.

Claim Objections

Claim 4 is objected to because of the following informalities:

Claim 4 includes essential subject matter (T representing thickness of the protective film and θ representing the angle in the Mathematical Expression 2) enclosed within parentheses. While reference characters corresponding to elements recited in the detailed description of the drawings and used in conjunction with the recitation of the same element or group of elements in the claims should be enclosed within parentheses, so as to avoid confusion with other numbers or characters which may appear in the claims, essential subject matter should not be enclosed within parentheses since references enclosed within parentheses do not constitute a limitation. See MPEP § 608.01(m).

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,3, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2003187969 to Iwase et al., and further in view of U.S. Patent 6,635,989 to Nilsson et al.

Regarding claim 1 Iwase discloses (Fig. 5 English translation para [0005], [0013], [0014]) a display comprising a driving substrate 1 having a display area 2 and an external connection 7 area spaced by a boundary therebetween, a sealing substrate 5, a protective film (closure resin protecting the display from generating dark spot) 4 which covers the display area and exposes the external connection area, wherein the end face of the protective film is formed along a vertical plane including the end face of the sealing substrate 5.

Iwase is silent about the lower end of the protective film slant away from the vertical plane in proximity of the boundary between the display area and the external connection.

Nilsson in same field of endeavor discloses (Fig. 3 column 3 lines 33-41 column 5 lines 43-49) a display device with driving substrate 52, sealing substrate 42 and a protective film 44, at least one end face of the protective film formed along a vertical

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plane including the end face of the substrate 42 and the lower end of the protective film slants away from the vertical plane from the proximity of the boundary of the display area. Nilsson notes that this configuration provides hermetic seal for the display device without significant increase of the overall thickness and can be produced with fewer individual process steps.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify the protective film 4 of the display of Iwase by the protective film 44 the lower end of the film slanting away from the vertical plane from the proximity of the boundary as suggested by Nilsson for providing hermetic seal for the display device without significant increase of the overall thickness which can be produced with fewer individual process steps.

Regarding claim 3 Iwase and Nilsson disclose the claimed invention except for the distance D between the lower end of the end face of the protective film and the vertical plane is 2 mm or less. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 205 USPQ 215 (CCPA 1980). Thus, it would have been obvious to one of ordinary skills in the art at the time the invention was made to select the distance between the end of the protective film and the end face of the vertical plane 2mm or less , since discovering an optimum value of a result variable is considered within the skills of the art.

Regarding claim 5 Iwase discloses the display unit is an organic light emitting device which has an organic layer 11 between a first electrode and a second electrode

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6 and which sends out light generated in the light emitting layer from the second electrode side.

Regarding claim 6 Nilsson discloses the driving substrate and the sealing substrate bonded with an adhesive layer (epoxy seal) 20 in between.

Allowable Subject Matter

Claims 4 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 4 the prior art of record neither teaches nor suggests a display unit having all the limitations as claimed and particularly the distance D between the lower end of the end face of the protective film and the vertical plane satisfying the mathematical expression $D \leq T \cdot \tan\theta$ where T represents the thickness of the protective film in the position sufficiently inside from the end face of the sealing substrate and θ represents the angle made by the plane which is drawn from the upper end to the lower end of the end face of the protective film and its value is $0^\circ \leq \theta \leq 10^\circ$.

Regarding claim 11 the prior art of record neither teaches nor suggests a display unit having all the limitations as claimed and particularly the film thickness distribution of the protective film in an area within 2 mm from the end face of the sealing substrate is

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0.95 or more of the film thickness in a position sufficiently inside from the end face of the sealing substrate.

Response to Arguments

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sikha Roy

Sikha Roy
Patent Examiner
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